

## Scientist Perspectives: Thoughts on Research Priorities

This form is a summary of the knowledge and capability gaps identified in Workshop Handout #1. You are welcome to provide us your thoughts on the relative priorities by checking the appropriate boxes below. If you would like to provide comments, suggest other gaps, etc.; please submit these on the back of this page or on a separate page. You may email or FAX your thoughts on gaps and priorities to: Levi Brekke, [lbrekke@do.usbr.gov](mailto:lbrekke@do.usbr.gov) FAX: 303-445-6351 before March 31, 2008

Agency: \_\_\_\_\_, Name (Optional): \_\_\_\_\_

Gaps (Abbreviated Description)	Priority Assignment					
	Relevancy to Agency			Feasibility to Address		
	Low	Med.	High	Low	Med.	High
<i>1. Summarize Literature</i>						
1.1 Clearinghouse, Scientific Literature						
1.2 Region-specific Literature Summaries						
<i>2. Obtain Climate Projection Data (Downscaled and Bias-Corrected)</i>						
2.1 Downscaled data at finer resolutions (space and/or time) and different variables						
2.2 Downscaled data that isn't based on "stationarity" (e.g., potentially revealed using regional climate models)						
<i>3. Translate Climate Projection Data into Planning Scenarios</i>						
3.1 Basis for weighting Emissions Paths						
3.2 How to jointly consider paleoclimate, near-term climate variability, and projected climate						
3.3 How to assess extreme meteorological possibilities in a changing climate						
<i>4. Assess Natural Systems Response (e.g., Hydrology, Ecosystems)</i>						
4.1 Climate impact on groundwater and interaction with surface water						
4.2 Climate impact on land cover and ecosystems						
4.3 How to assess flood control rule requirements in a changing climate						
4.4 How to assess extreme hydrologic possibilities related to dam safety in a changing climate						
4.5 Guidance on runoff analysis dependence on method/tool; and method/tool preference						
<i>5. Assess Social Systems Response (Water Demands)</i>						
5.1 How to project social responses to that constrain operations (e.g., water demands, flood protection, environmental values)						
5.2 Crop water demand response to climate and atmospheric carbon dioxide changes						
<i>6. Assess Operations and Dependent Resources Response</i>						
6.1 Experience conducting policy-search studies (e.g., "crystal-ball" operator, optimization)						
6.2 How to blend "static" and "crystal-ball" operator depictions into realistic portrayal of operations unfolding under climate change						
6.3 How to analyze operations impacts on climate						
<i>7. Assess and Characterize Uncertainties</i>						
7.1 How to assess and characterize uncertainties by element						
7.2 How to how uncertainties interrelate and/or compound across elements						
<i>8. Communicate Uncertainties and Incorporate into Decision-Making</i>						
8.1 Experience communicating uncertainties associated with climate change and its relation to Reclamation planning processes						